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Capital master plan

Report of the Secretary-General

Summary

The United Nations Headquarters complex in New York, which was largely built during the period 1949-1952, is a superbly designed and well-constructed landmark. However, notwithstanding a solid genealogy, the structures are ageing and now require major repair and refurbishing. The structures are extremely energy inefficient and no longer conform to current safety, fire and building codes. In addition, the complex is deficient in terms of meeting modern-day security requirements.

Even the most efficient and effective maintenance activities are not sufficient to prevent the cumulative effect of normal wear and tear. The present reactive approach to maintaining the complex is inefficient and will become excessively expensive as the buildings age further. Maintenance alone cannot sustain a building in the long term.

A long-term capital master plan, prepared by the Secretariat with the assistance of professional architects and engineers, identifies the serious deficiencies of the ageing buildings and sets forth possible remedies in a comprehensive, systematic and cost efficient manner. The present report reviews the current condition of the buildings, the implications of action and inaction, reviews various financing options and presents a proposed course of action by the Secretary-General.

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I. Overview

1. A long-term capital master plan has been developed for the United Nations Headquarters complex in New York in accordance with the budget appropriation for the biennium 1998-1999. The plan, which covers the buildings and land owned by the United Nations in New York, with the exception of the residence of the Secretary-General, reviews the current condition of the facilities and assesses their requirements over a 25-year period. The selection of the 25-year period is based on the functional life expectancy of building components and major equipment.

2. The capital master plan is based on several assumptions:

(a) United Nations Headquarters will remain in its current location in New York;

(b) The Headquarters complex should be energy efficient, free of hazardous materials and compliant with host city building, fire and safety codes, and should provide full accessibility to all persons;

(c) The Headquarters complex should meet all reasonable, modern-day security requirements;

(d) The original architecture of this landmark facility should be preserved to the greatest extent possible;

(e) Disruption to the work of the United Nations should be kept to a minimum;

(f) The most cost-effective and technologically viable method of implementation should be selected for all repair and refurbishment.

3. A thorough examination of the current condition of the Headquarters complex was conducted in 1998-1999 by the Secretariat, with the assistance of a team of professional architects and engineers, in order to develop a series of options and to formulate a proposed course of action for the consideration of Member States.

4. The study confirmed the high quality of the original construction. Nevertheless, serious deficiencies were found. Many building elements have deteriorated simply due to age and extended use. Furthermore, standards and expectations have risen since the original design of the complex, and the buildings no longer meet minimum requirements.

5. The current condition of the Headquarters complex renders it unacceptable for continued use over the long term. The capital master plan outlines the work required to rectify this situation and provide a safe, secure, appropriate and energy-efficient facility to carry out the vital business of the Organization. In sum, a major repair and refurbishment programme is required.

6. One possible approach is to undertake the required work in a reactive manner over the next 25 years. This means that, as and when building and system failures occur, the required repair work is performed and expenditures incurred.

7. However, there are serious disadvantages to the reactive approach. First, because the major alterations required to reduce energy consumption would occur incrementally, United Nations energy costs, already one of the highest in New York City, would continue to rise. Measured in constant year 2000 dollars, the United

Nations energy costs for Headquarters complex buildings will increase by nearly 300 per cent, from an estimated $10 million in 2001 to a projected $28 million in 2027. Second, the cost of repairs would also increase significantly. In comparison to the $11 million allocation for alterations, improvements and major maintenance in 2001, it is estimated that, by 2014, the annual costs for similar expenditures would increase to $78 million. Thus, notwithstanding total repair expenditures amounting to $1,154 million being incurred over a 25-year period, the facilities would not be modernized or improved in any meaningful way. The reactive approach would not result in the installation of a full sprinkler system or of a more efficient electrical distribution system; it would not lead to systematic removal of asbestos and sources of electromagnetic field exposure in the buildings; and it would not provide improvements in air distribution or essential security upgrades.

8. The alternative to the reactive approach is a planned and managed renovation programme — a capital master plan carried out over a set period of time. Rather than waiting for deteriorated building systems to fail completely and then performing the work, large portions of the Headquarters complex would be vacated and isolated in an organized and planned manner, so that improvements could be made efficiently and without risk to building occupants. In order to vacate spaces and do the work, adjustments to meeting schedules, relocation of certain meetings to locations away from the Headquarters complex, temporary curtailment of certain Headquarters services and the availability of adequate "swing space" to accommodate vacated staff and functions would be required to ensure successful implementation of this programme. Leasing of space in a building acquired or constructed by the United Nations Development Corporation (UNDC) is the cheapest solution in the short term. However, adding space onto existing Headquarters building or the construction of a new building would have long-term financial and operational advantages that warrant serious consideration. Construction of additional space would provide the Organization with the opportunity after the plan's implementation to accommodate space needs that are currently met under commercial leases in the former swing space.

9. Options of a three-year, six-year or 12-year duration for the planned programme have been considered. The estimated cost for the capital master plan ranges from $875 million for the three-year option to $1,054 million for the 12-year option, exclusive of any financing or maintenance costs. Each option has advantages and disadvantages in terms of the costs and the impact that the refurbishment programme will have on operations at Headquarters. Although the three-year option would be the cheapest, it would also be the most disruptive since approximately 50 per cent of the Headquarters facility would be under construction at the same time. Conversely, although the 12-year option would be more expensive, it would be the least disruptive since only 10 per cent of the Headquarters facility would be under construction at the same time. The Secretary-General is of the view that the most practical and desirable approach is the six-year option, at an estimated cost of $964 million, under which 33 per cent of the Headquarters facility would be under construction at the same time and would require the availability of swing space at an estimated cost of between $62 and $91 million. If the six-year plan were implemented, it is estimated that, in addition to having a completely refurbished Headquarters site, there would be substantial energy cost savings of some $164 million over the 25-year period in comparison with the reactive approach.

10. The Secretary-General also examined the option of complete demolition and reconstruction of the Headquarters buildings. The estimated cost of demolition and reconstruction is conservatively estimated at $992 million. There would be additional costs for relocating the entire Secretariat staff for a period of up to five years, which is estimated at $218 million. This would bring the total cost to $1,210 million. In addition, there would be further costs for convening all meetings away from United Nations Headquarters, which would be substantial for the Organization.

11. Implementation of the capital master plan will give the Organization an opportunity to look to its future, with a long-term perspective and with a view to accommodating needed changes and improvements to the facility at a lower cost than would otherwise be the case if such changes were made through individual construction projects. The Organization's expanded membership over the years, increased levels of interaction with civil society, non-governmental organizations and the public, as well as technological changes, have placed unprecedented and new operational demands on an ageing Headquarters complex. Those demands are being addressed by the addition of more meeting spaces, consolidation of technological support spaces and the enhancement of public areas at Headquarters as part of the plan. The Secretary-General will also be submitting to the General Assembly a separate report on a related proposal to expand the United Nations visitors' area beyond the existing buildings funded through private donations.

12. The Secretary-General is firmly convinced that there is a clear case for the Organization to proceed with the six-year refurbishment programme. Such a course of action makes sense both substantively and financially. The six-year programme would address the identified deficiencies and enable remedial actions to be taken as soon as possible to ensure that Member States, delegates, staff and other users of the Headquarters site are provided with safe, secure and modern facilities to carry out the work of the Organization. The total cost of a six-year capital master plan would be $964 million, $190 million less than the total cost of the reactive approach of $1,154 million over the same 25-year period. In addition, estimated savings in energy costs would total $164 million over that same period. Thus, implementation of the six-year plan would be more cost-effective than the reactive approach by a total of $354 million.

13. There are three possible sources of funding for the capital master plan: special assessments; the programme budget; and voluntary contributions, in cash or in kind, from public and private sources. Although every effort would be made to explore the availability of voluntary contributions, it is assumed that most and possibly all of the plan's costs would have to be met by Member States.

14. Under the six-year capital master plan, the projected annual funds requirement during its six years of implementation would be as follows: $174 million in the first year; $174 million in the second year; $174 million in the third year; $161 million in the fourth year; $135 million in the fifth year; and $101 million in the sixth year. In addition, due to the necessity of performing certain plan-related work (e.g., construction design) prior to commencement of actual construction, it would be necessary to have on hand $45 million two years prior to start of construction, as well as the required funds during the actual six-year construction period. Interest income earned on a construction fund to be established and maintained throughout

the plan's implementation period would be applied to reduce the annual funds required.

15. The Secretary-General is mindful that an additional assessment of $964 million over an eight-year period could be a burden to Member States. In order to alleviate that burden and to relate annual cash outlays to the life expectancy of the planned refurbishment, the Secretary-General recommends that Member States consider amortization of the refurbishment cost of $964 million over a period of 25 years in the form of interest-free loans and/or outside commercial borrowing. There are precedents for both of these possibilities. In 1948, the host Government for United Nations Headquarters provided a $65 million loan to finance the cost of the construction and furnishing of the Headquarters buildings, which loan was repaid over a 31-year period. In 1961, the General Assembly authorized the Secretary-General to issue 25-year bonds up to $200 million.

16. The viability of outside commercial borrowing has been examined with the assistance of a financial consultant. Several possibilities have been considered, including outside loans guaranteed by Member States, borrowing against the assets of the Organization and a bond offering. The review indicates that a bond offering appears to be the only viable approach among these possibilities. Bond financing can be secured at a reasonable interest rate provided that specific financial mechanisms are put in place to satisfy the credit rating agencies and investors.

17. Interest-free loans from Member States for the full capital cost requirement of $964 million would result in annual debt service payments of $38.6 million over the 25-year period. In the case of outside commercial borrowing of the full capital cost requirement, annual debt service payments are estimated at approximately $76.8 million, for a total payment of $1,921 million, including interest of $957 million, over the 25-year period. In the event a combination of interest-free loans and outside commercial borrowing are used to provide the full capital cost requirement, the annual debt service payment would range between $38.6 million and $76.8 million, depending on the amount of interest-free loans available.

18. The financing options mentioned in the present report include progressive cash payments; deferred payments through interest-free loans and/or outside commercial borrowing; and voluntary contributions, in cash or in kind, from public and private sources. The Secretary-General is of the view that all financing options must be carefully considered and examined in detail. For that reason, he intends to establish a five-member expert financial advisory group composed of financial experts and eminent persons to provide the detailed and comprehensive advice required.

19. The Secretary-General recommends that, having considered his report on the capital master plan for United Nations Headquarters, the General Assembly:

(a) Endorse in principle the proposed six-year plan;

(b) Approve a special assessment of $8 million to cover the costs of the initial schematic design for the plan, including the swing space requirement, in order to provide a detailed basis for its implementation;

(c) Request the Secretary-General to continue exploring all financing options for meeting the plan's costs, including its amortization over a 25-year period;

(d) Request the Secretary-General to submit no later than 2001 a comprehensive schedule and financing plan for the capital master plan.

II. Background

20. The decision to locate United Nations Headquarters in New York was taken by the General Assembly in 1946. Among the factors considered by the General Assembly was a gift of $8.5 million (equivalent to $72.6 million in year 2000 dollars)[1] from John D. Rockefeller Jr., which enabled the Organization to purchase a large tract of land from private owners. The City of New York contributed property rights, access and land to create a continuous and uninterrupted site, from 42nd to 48th Streets, between First Avenue and the East River.

21. The land remains the property of the United Nations as long as the Headquarters of the United Nations remains on the site. An interest-free loan of $65 million (equivalent to $449.2 million in year 2000 dollars)[2] was provided in 1948 by the host Government for the construction and furnishing of the Headquarters buildings. By its resolution 242 (III) of 18 November 1948, the General Assembly approved the loan and the repayment schedule. The loan was repaid in full over a 31-year period, beginning in 1951 and ending in 1982.

22. Both the City and the State of New York contributed major improvements and alterations to First Avenue, 43rd Street, the FDR Drive ramps at 42nd and 48th Streets, and the infrastructure around the Headquarters site to create better traffic flow and pedestrian access.

23. The Headquarters complex was originally designed to accommodate up to 70 Member States. It was the result of a unique collaboration among 10 internationally renowned architects forming a Board of Design, whose efforts were coordinated by a Director of Planning. Construction began in 1949, with the Secretariat building ready for occupancy in 1951, followed by the General Assembly and Conference buildings in 1952. The total cost of construction was $67 million (equivalent to $463 million in year 2000 dollars).[3] The buildings were technically advanced for their time, the quality of materials and equipment was outstanding, and the complex was considered innovative and truly international in design. Conceived before modern concepts of energy conservation, the extensive use of glass created a sense of openness and transparency.

24. The Dag Hammarskjöld Library was constructed at the South end of the Headquarters site in 1961, funded by a gift to the United Nations from the Ford Foundation. The cost of construction was $6.7 million (equivalent to $37.3 million in year 2000 dollars).[4] The Library building maintained the high design standard and construction quality of the earlier buildings.

25. In 1968, in view of the growth of the United Nations and affiliated organizations and the resulting need for additional office, hotel and parking facilities, the Legislature of the State of New York, acknowledging the benefits of the presence of the United Nations in New York City, statutorily created a development zone, known as the United Nations Development District, in the

[1] Equivalent established based on United States Bureau of Labor Statistics data on the annual percentage change in the consumer price index (CPI).

[2] Ibid.

[3] Ibid.

[4] Ibid.

vicinity of the Headquarters site. The 1968 statute also created UNDC, managed by a board, which included state and city representatives, and charged it with the responsibility of coordinating development within the District to meet the needs of the United Nations and the international diplomatic community.

26. New office buildings were constructed by UNDC in three phases. The UNDC-I building (One United Nations Plaza) was completed in 1976 and the UNDC-II building (Two United Nations Plaza) in 1983. As of June 2000, the United Nations is leasing 339,143 square feet (ft^2) (31,507 square metres) (m^2) of office space in the UNDC-I building and 320,999 ft^2 (29,822 m^2) of office space in the UNDC-II building, including office space for which the United Nations is reimbursed that is occupied by United Nations funds and programmes, liaison offices of the specialized agencies and other United Nations-affiliated entities. The UNDC-III building (Three United Nations Plaza), also known as "UNICEF House", was constructed by UNDC in 1983 to meet UNICEF's expanded office space requirements.[5] The United Nations currently leases 127,500 ft^2 of space at United Nations Headquarters in buildings not owned by UNDC.

27. In September 1989, the underlying land of the United Nations Institute for Training and Research (UNITAR) building at 45th Street and First Avenue was purchased by the United Nations for $4.5 million. The building itself was owned by UNITAR. In its resolution 47/227 of 26 March 1993, the General Assembly transferred ownership of the building to the United Nations.

28. In 1976, the General Assembly approved $55 million (equivalent to $161 million in year 2000 dollars)[6] for an expansion programme for United Nations Headquarters, funded from the regular budget. Although the complex was originally designed to accommodate the needs of up to 70 Member States, by 1976 there were 147 Member States.[7] The 1976 expansion programme included the reconfiguration of conference rooms, the addition of the South Annex building to accommodate an expanded cafeteria, a reconfiguring of the former cafeteria area to accommodate a new Staff Café, and an expanded Delegates Dining Room. In addition, the North Lawn extension was constructed below ground to accommodate the Organization's expanded document printing and distribution requirements, while the Conference Building was expanded to add two new conference rooms and additional conference support facilities.

29. A conditions survey of the mechanical and electrical systems of the Headquarters buildings was performed in 1977. Although the survey found that these systems were in "remarkably good condition", it revealed that some equipment was obsolete and other equipment required replacement after 25 years of use. During the 1978-1989 period, replacement of mechanical equipment was undertaken since first-generation equipment had reached the end of its useful life. It should be noted that from the time of the original construction of the Headquarters site until the 1980s, construction industry practices and public attitudes toward energy consumption, fire safety, accessibility and the workplace environment had not changed significantly.

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[5] Since the UNDC-I, II and III buildings are owned and operated by UNDC they are not included within the scope of the capital master plan.

[6] See footnote 1.

[7] As of 1 June 2000, there are 189 Member States.

30. In 1990, it was recognized that another conditions survey was required to be undertaken for the entire facility with a view to developing a long-term plan to provide for and manage the future needs of the Headquarters complex. In the 1992-1993, 1994-1995 and 1996-1997 regular budgets, funds were approved for the development of a capital master plan.[8] However, those funds had to be redeployed to meet building emergencies. In 1998, the Secretariat, assisted by a team of outside architects and engineers, undertook the preparation of a plan.

III. Capital master plan development

A. Review of existing conditions

31. In order to develop the capital master plan, the physical condition of the United Nations Headquarters complex was examined in detail in 1998-1999. The buildings and site were examined in relation to the original design intent, conformance with host city building, fire and safety codes both at the time of construction and today, conformance with principles of sustainable development, reasonable life expectancy of equipment and building systems, and current building standards.[9] All building elements were examined, including the condition of building exteriors, landscaping, fire protection, plumbing, heating, air conditioning, electrical systems, roofs, glazing, information infrastructure, the presence of hazardous materials and the interior finishes. In some cases, building components were removed to permit the inspection of normally concealed conditions.

32. The detailed examination confirmed the high quality of the initial construction. Notwithstanding, serious deficiencies of two major types were found:

(a) Key building systems, including mechanical, electrical and waterproofing components, have severely deteriorated due to age and prolonged usage;

(b) Building performance standards and user expectations have risen since the construction of United Nations Headquarters, and the buildings no longer meet minimum modern standards with respect to fire safety, security, energy conservation or better accessibility for all persons.

33. The results of the detailed examination clearly show that users of the United Nations Headquarters site, such as delegates, staff members and visitors, have a lower chance of survival during a fire, consume more energy at higher cost and face greater obstacles to accessibility and productivity than they would at comparable modern buildings in New York City or other major cities in the world. In

[8] See *Official Records of the General Assembly, Thirty-sixth Session, Supplement No. 6A* (A/36/6/Add.1); ibid., *Thirty-eighth Session, Supplement No. 6A* (A/38/6/Add.1); and ibid., *Fortieth Session, Supplement No. 6* (A/40/6).

[9] Under the terms of the Agreement between the United Nations and the United States regarding the Headquarters of the United Nations, signed on 26 June 1947 (United Nations, *Treaty Series*, No. 147), the Organization is responsible for complying with United States federal, state and local laws unless the United Nations promulgates its own regulations regarding a particular subject. The United Nations has not promulgated a regulation providing for its own building code, and is therefore bound to comply with local building codes. Although the Headquarters buildings were all code-compliant as originally designed and constructed, local building codes have been upgraded over the years as a result of experience, particularly with regard to fire safety and environmental standards. The Headquarters buildings do not meet current standards.

comparison to original expectations when first constructed and considering that Headquarters conference facilities are operating significantly beyond capacity, it is clear that the Headquarters site is being overutilized. Since the levels of interaction with civil society, NGOs and the public are expected to increase in the coming years, that utilization will further intensify and wear and tear on the buildings, particularly the conference-related facilities, will accelerate. Moreover, expectations among meeting attendees concerning facilities have risen, and existing facilities at Headquarters are not considered adequate for modern conferences.

34. The future impact of these existing deficiencies will be dramatic. The condition of the building systems has reached the point at which regular maintenance can no longer keep pace with the rate of deterioration. Among other things, the buildings are experiencing major leaks, falling concrete, cracked pipes, exploding steam valves, electrical feeder failures and inaccurate fire alarm signals. It is projected that the frequency of those types of building emergencies will increase significantly over the coming years as the buildings and systems continue to age and deteriorate.

35. Furthermore, energy consumption costs will rise as the systems age even further. It has been estimated that 25 per cent of the United Nations steam use is "false load", i.e., energy wasted through leaking steam valves or rusted piping. False load will increase in future years as equipment further deteriorates. Since the original design and installation of the heating and cooling systems in 1947-1949, the most significant change in the use of energy in buildings has been the introduction of sensors and controls to manage those systems so as to supply energy when needed and reduce supply when it is not needed. There are virtually no energy sensors or controls throughout the Headquarters site. Consequently, hundreds of air circulation fans are either "on" or "off", and the entire energy supply system, covering 2,650,653 ft^2 (246,254 m^2), must be manually reset with the change in seasons.

B. Reactive approach to dealing with deficiencies

36. Remedying the deficiencies described in paragraphs 31-35 above is a major undertaking. One possible approach would be to undertake the required alterations in a reactive manner, that is, as and when the need arises over a 25-year period (the reactive approach). The scope of work for the reactive approach would ultimately involve the piecemeal replacement or alteration of nearly every building system in the United Nations Headquarters complex.[10]

37. Under the reactive approach, the annual cost for major construction and emergency work would dramatically increase in future years, from $11 million in 2000 to $78 million by 2014, although it would gradually decline toward the end of the 25-year period because of the extended life expectancy of replacement equipment.

38. There are several other significant disadvantages to the reactive approach. One such disadvantage, with which delegations and staff are already familiar, is the

[10] Notwithstanding the serious deficiencies found to exist, some of the major building components are in relatively good condition and can be expected to perform well for many years if properly maintained: for example, both the glass and marble Secretariat building facades will require only normal maintenance work.

disruption to the planned work of the Organization due to building emergencies. As the rate and effects of deterioration are not predictable, an approach that is premised on responding to building system failures and emergencies as they occur would inevitably result in unplanned and untimely disruptions.

39. Another disadvantage of the reactive approach is the continued exposure of users of the buildings to an unacceptably high degree of potential risk, should a major fire, hazardous material exposure or major security incident occur. The substandard fire protection systems, the large quantity of existing asbestos in the buildings[11] and the deficient security infrastructure at Headquarters, could have disastrous consequences.

40. Moreover, there are significant financial consequences to continuing with the reactive approach. First, the required remedial work would be expensive: performing construction work in occupied facilities in small segments on an emergency basis is the most expensive of all possible construction and refurbishment scenarios. Second, the comparatively high level of energy costs would be unduly prolonged since transition to new, significantly more energy-efficient technologies would occur only as systems completely failed and were replaced. Indeed, the annual energy cost is expected to progressively increase from $10 million in 2001 to $19 million in 2014 and $28 million in 2027.

41. More importantly, under the reactive approach, at the end of the 25-year period under consideration, after expenditures projected at $1,154 million for emergency work and major construction and $490 million for energy, a total of $1,644 million, the Headquarters complex would merely have been repaired and would not have been fundamentally upgraded or improved. Serious building code deficiencies, including incomplete fire sprinkler systems, would remain, while the technological infrastructure would continue to be a patchwork and the security infrastructure would continue to be inadequate, thereby posing unnecessary risk to all who use or visit the Headquarters site. Furthermore, because the reactive approach would not permit thorough, systematic modernization, at the end of the 25-year period a fundamental refurbishment of the Headquarters complex would still be required.

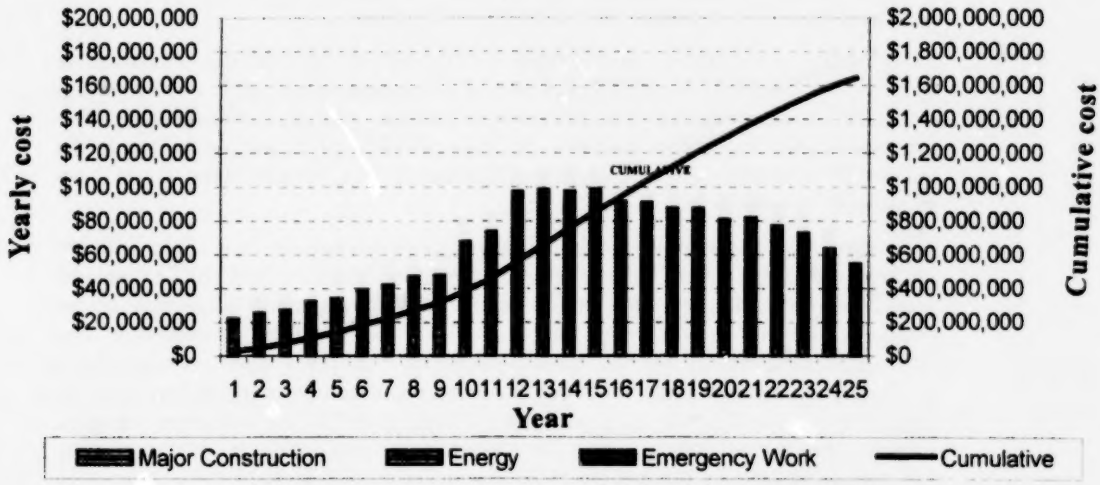
42. The estimated annual costs for major construction, emergency work and energy of the reactive approach over the 25-year period beginning in 2003 are set out in figure I.

C. Capital master plan

43. The alternative to the reactive approach is a planned and managed programme of refurbishment under a capital master plan. This approach would minimize the total time spent in construction, control disruption and relocation, and ultimately cost much less than other approaches to refurbishing the United Nations Headquarters complex.

[11] Under the reactive approach, complete asbestos removal would not be possible since the buildings would not be vacated. Asbestos-containing materials could only be removed and replaced gradually, as they became "friable" or when distrubed by other repairs.

Figure I
Reactive approach: responding to emergencies



44. The major elements of the refurbishment to be implemented under the capital master plan, which are based on the findings of the building conditions assessment conducted in 1998-1999, include the following:

(a) A core construction refurbishment programme in the General Assembly, Conference, Secretariat, Dag Hammarskjöld Library, North Lawn extension, South Annex and UNITAR buildings. Core refurbishment would include installation of a full sprinkler system and a complete fire alarm system; replacement of the heating, ventilating and air conditioning systems; upgrading of electrical wiring and panels; replacement of lighting and ceilings; removal of asbestos; refurbishment of damaged finishes; consolidation and modernization of data-distribution systems; and improvements in signage, doors, bathrooms and elevators to provide better accessibility for all persons.

(b) In addition to the core refurbishment, in the General Assembly and Conference buildings the remaining obsolete simultaneous interpretation systems would be replaced, capacity for teleconferencing and video presentation would be expanded, and the elevators and escalators would be refurbished and replaced, as necessary. In the Secretariat building, the work would also include elimination of major equipment on the 28th floor which generates electromagnetic fields. The Dag Hammarskjöld Library building work would include replacement of the existing elevator with a fully accessible one and refurbishment of the Auditorium.

(c) Infrastructure work throughout the Headquarters complex would include replacement of the incoming electric service with a more efficient one and installation of new electrical distribution equipment. It would also include replacement of the older central plant heating and cooling equipment with efficient systems, replacement of deteriorated piping, installation of a complete facility-wide automatic building management system, a consolidated distribution system for voice and data and a construction programme to upgrade all basement spaces.

(d) Security improvements in the Headquarters complex would include improvements to the perimeter monitoring, expansion of screening facilities to permit visitor screening outside the General Assembly building,[12] provision of a sheltered location for screening of visitors at the 42nd Street entrance, upgrades and extension of camera systems to cover greater areas of the facility with better visibility, construction of an additional elevator at the Conference building "neck" to separate outside users of the Delegate's Dining Room from internal traffic, and replacing some existing exterior glass with blast-proof glazing.

(e) Site and landscaping improvements would consist of restoration of deteriorated paving, railing, walkways, site amenities and drainage, and timely replacement of diseased and decayed planting.

45. Although the purpose of the capital master plan is to refurbish existing Headquarters buildings, Member States may wish to note that as a result of undertaking preparation of the plan it became readily apparent to the Secretariat that its implementation would provide the Organization with a unique opportunity to make certain improvements to the Headquarters facilities. For instance, implementation of the plan would provide an opportunity to rationalize space allocation within buildings. More importantly, several other additions and improvements were identified which could remedy long-standing problems, including the overutilization of conference facilities noted in paragraph 33 above, to better enable the United Nations to plan and meet its future needs. Implementation of the plan would provide an opportunity to undertake these recommended additions and improvements at a much more reasonable cost than would otherwise be possible as stand-alone projects. In the light of the expanded membership of the United Nations, which is currently 189 Member States compared to the Headquarters site's original design capacity of up to 70 Member States (see para. 28 above), and considering, as previously noted, the Organization's increased interaction with civil society, NGOs and the public, the Secretary-General suggests that the recommended additions and improvements are both necessary and operationally justified, and has therefore included them in the plan. The recommended additions and improvements are described in paragraphs 46 to 49 below.

46. *Expansion of and improvements to meeting facilities.* This project involves improving facilities for meetings and conferences through the addition of three mid-sized meeting rooms to accommodate 60 occupants in each room and supporting spaces. A suite of interpretation booths would also be created for remote interpretation, thus keeping a conference room available when remote interpretation is being provided for meetings other than at Headquarters. The probable location would be the first basement of the General Assembly building, in part of the area currently occupied by broadcast and conference engineering facilities. The project would also improve the office facilities for the heads of intergovernmental bodies, as well as the supporting office spaces adjacent to the conference rooms. The estimated cost of this project is $6 million.

47. *Extension of the Conference building.* This project involves extending the South end of the Conference building to create an additional two-story chamber at the second and third floor levels capable of supporting meetings of the General

[12] Should the visitor's experience project proceed, the required screening facility for visitors would be part of a new building to be constructed on-site at 47th Street; the visitor's experience project is the subject of a separate report of the Secretary-General to the General Assembly.

Assembly. It also provides for multipurpose space at the first basement and first floor levels to meet requirements for functions other than meetings, such as concerts, lectures and special events. The estimated cost of this project is $45 million.

48. *Consolidation of information technology service spaces (addition of computer centre and broadcast areas).* Due to serious difficulties in renovating the existing high-technology areas, the capital master plan provides for the addition of a computer centre and broadcast area at the North end of the General Assembly building, at the second and third basement levels. Such an addition could be constructed quickly and without disruption to existing systems, and would provide completely modern facilities. The addition would release valuable space for improvements to conference facilities and make office space available in the Secretariat building, which is urgently required. The estimated cost of this project is $12 million.

49. *Improvements to public areas.* In the light of the desirability of allowing more direct observation by the public of the work of the United Nations, the capital master plan provides for the installation of sound-proof partitioning at the public galleries of the Security Council, the Trusteeship and the Economic and Social Council chambers, so that the public can observe open meetings without disruption to the participants. Security improvements are also needed to prevent inadvertent access to the second floor. The first basement concourse would be reconfigured to provide space for additional exhibition areas, new bathrooms, a more visible postal counter and the construction of a new coffee shop. The observation area to Conference Room 4 from the first floor public lobby would be re-established. The estimated cost for this project is $11 million. Its financial and programmatic in relation to the proposed visitor's experience will be discussed in the Secretary-General's separate report on that subject.

50. The total cost of the recommended additions and improvements described in paragraphs 46 to 49 above is estimated at $74 million, and has been included in the costs of the capital master plan, as further discussed in paragraphs 66-74 below.

51. *In addition to planned work under the capital master plan, it should be noted* that emergency work will continue to be required during its implementation. It is anticipated that building systems will continue to break down in areas outside of the construction work areas, so that emergency work may be needed in particular areas before core refurbishments under the plan can be implemented.

D. Impact of the capital master plan on normal operations

52. *There are a number of operational consequences arising from the* implementation of the capital master plan. First, staff and functions would have to be temporarily moved out of designated areas in the United Nations Headquarters complex in a planned and phased manner. The construction work areas would be separated through partitioning and the air systems isolated from adjacent areas that are outside work areas. Construction would then proceed, without exposing delegates, staff and the public to the risk of hazardous materials, and without disrupting the work environment for users of areas adjacent to the construction areas. The most feasible scenario for the renovation of the Secretariat building would require the isolation of 10 floors at a time, or approximately 200,000 ft^2

(18,581 m^2). Other buildings would probably undergo renovation in two phases, involving approximately 50 per cent of each of those buildings at a time.

53. Second, adjustments to the regular schedule of meetings, the availability of facilities for NGOs and the reduction of services to the public would be necessary. Some meetings would have to be held outside the Headquarters complex during certain phases of construction work. Alternate facilities for NGO activities and new arrangements for visitors to the United Nations would have to be identified as part of the implementation of the capital master plan.

54. Third, in order to vacate areas of the Headquarters site of staff and functions in phases during construction and at the same time ensure the proper functioning of the Secretariat, adequate temporary office space (swing space) in close proximity to Headquarters would have to be secured. To meet this requirement, several alternatives would have to be explored, including:

(a) Commercial leasing of office space for the required period;

(b) Leasing from UNDC, which could create new space for this purpose through purchase and renovation of an existing building or through construction of a new one;

(c) Constructing additions onto existing on-site buildings;

(d) Construction of a new building on the Headquarters site or off-site in the vicinity of the United Nations.

E. Possibilities for meeting the swing space requirement

55. The availability of swing space is a key factor in successfully planning and implementing the capital master plan. Unfortunately, meeting the swing space requirement will be expensive. As of June 2000, the average asking price for commercial office space in proximity to United Nations Headquarters is $47.50 per square foot. The total estimated cost under a commercial lease of meeting the swing space requirement of 200,000 ft^2 for a period of six years is $69 million, comprised of $57 million for rent, $10 million to "fit out" the space and $2 million to cover the cost of relocating staff within the Secretariat and to other buildings. It should be noted that 200,000 ft^2 is considered a relatively large block of space, which will be particularly difficult to obtain in proximity to Headquarters under current local real estate market conditions.

56. As an alternative to commercial leasing, UNDC could be of assistance in meeting the need for office swing space. It is expected that UNDC would be in a position to purchase and refurbish a building within the District, or to identify a site therein and construct a building for use by the United Nations. In either instance, the building could be leased to the United Nations for the duration of the swing space need. The estimated cost, $62 million, including rent, fit-out and staff relocation, is less than that of a commercial lease ($69 million).

57. Another way to meet the need for swing space would be to construct either an addition to an existing on-site building or a new building. Over the long term, this approach might represent a better use of resources than leasing. After implementation of the capital master plan, offices currently located in commercially leased space could be relocated to the former swing space, thus avoiding future

commercial leasing expenditures. There are, in fact, several construction options for meeting the swing space requirement as described below. All of them require significant architectural consideration, particularly in view of the design heritage of the present complex.

58. One option for the creation of swing space would be to construct an addition to an existing building. This would require careful review of the effect not only on the particular building itself but also on the harmony of the complex as a whole. Such an addition might be considered to either the Secretariat building or the Dag Hammarskjöld Library.

59. Another on-site option would be to construct an addition above the existing South Annex building or to replace the building altogether. From a construction perspective, replacing the South Annex building entirely with a larger building which would incorporate the swing space requirement would be less complicated and might prove to be a better option.

60. A third on-site option would be to construct a new low-rise building. One location could be the North end of the Headquarters site, which is principally comprised of the United Nations garden. Although it would certainly be structurally feasible to construct such a building, it should be noted that the United Nations garden has become a well appreciated amenity within the neighbourhood and changes to the garden must take that into account.

61. The final option would be to construct an off-site building, which would involve the utilization of property in the vicinity of the United Nations.

62. Any one of the above-mentioned construction options could meet the swing space requirement of 200,000 ft^2 for the six-year capital master plan. Construction would represent the best value for money over time because the swing space would remain available for use after the plan's implementation.

63. However, each option will require careful consideration and not all may prove to be acceptable. An international group of architects played a prominent role in the conceptual design of the present complex, and the unique character of the buildings and site must be preserved.

64. Leasing office space from UNDC is a proven method, for which reason the estimated costs of leasing swing space from UNDC are included in the estimated costs of the capital master plan. A detailed examination of the architectural and financial feasibility of all the options described above would be required as a key element of the implementation planning for the capital master plan.

65. The options for meeting the swing space requirement, with the estimated range of costs for each, are summarized in table 1.

Table 1
Estimated costs of swing space options

Swing space options	*Estimate cost (United States dollars)*
Leasing	
UNDC	62 000 000
Commercial space	69 000 000
Construction	
Addition to an existing building, if architecturally acceptable	73-91 000 000
New low-rise building, e.g., North Lawn area	67 000 000
New building off-site, vicinity of United Nations Headquarters[a]	78 000 000

[a] Construction costs only.

F. Duration and cost of the capital master plan

66. The capital master plan can be implemented over a three, six or 12-year period. Each of these options has advantages and disadvantages. The plan's duration will determine the size of the area to be refurbished during any given time period, which will, in turn, determine the amount and duration of swing space required and have significant implications, as discussed below. The shortest feasible time-frame for the plan is three years. This would result in approximately 50 per cent of the Headquarters facility being under construction at the same time. It would require that 50 per cent of the staff be relocated to the swing space and that many meetings be held in other locations. A three-year plan, which is estimated to cost $875 million, is the cheapest of the three options considered. Energy costs would be $301 million over the 25-year period, which also is the cheapest of the three options. This compares with $490 million in energy costs under the reactive approach. However, under the three-year plan the degree of disruption to normal United Nations operations and the resulting indirect costs (relocation of meetings, travel costs etc.) would be substantial and by far the highest of the three options. For those reasons, the Secretary-General considers a three-year period for implementing the plan not to be realistic or operationally desirable.

67. Another alternative is a 12-year capital master plan. In comparison with the three-year plan, the construction cost is higher, $1,054 million, and energy costs would also be higher, at $367 million over the 25-year period. However, because of the longer time-frame, the degree of disruption to work and staff relocation required — 10 per cent — would be far less. On the other hand, the need to operate the Headquarters site through 12 years of extensive construction activity would impose undue hardship and inconvenience on delegates, staff and visitors. Therefore, the Secretary-General, also considers the 12-year period for implementing the plan not to be realistic or operationally desirable.

68. The third alternative is a six-year capital master plan, which is considered to be a reasonable time-frame for implementation and not as disruptive to the Organization's work. The six-year project period, which would require the relocation of 33 per cent of Headquarters staff, is considered manageable. The cost

of construction is estimated at $964 million, and the cost of energy at $326 million over the 25-year period.

69. Comparative cost estimates[13] for the three, six and 12-year capital master plans, along with those for the reactive approach, are provided in table 2.

70. The comparisons provided in table 2 clearly indicate that the capital master plan, irrespective of its duration, is substantially more cost-effective than continuing with the reactive approach. In addition to being more costly, continuing with the reactive approach would not result in any fundamental improvements being made to the Headquarters site over the 25-year period. Its inefficiencies would remain to be addressed and paid for sometime after the 25-year period. Moreover, under the reactive approach, it would be prohibitively expensive and operationally problematic to implement the recommended additions and improvements identified in paragraphs 45 to 50 above.

71. Member States may wish to note that there are no substantive differences among the three capital master plan options. The cost differences are attributable to the time factor, which impacts construction costs, the swing space requirement and its cost and energy cost savings. It should be noted that table 2 includes the costs of the recommended additions and improvements (see paras. 45-50 above) that the Secretary-General has suggested be implemented as part of the plan.

72. As a point of reference, the Secretary-General has examined the construction of an entirely new facility on the Headquarters site. New construction costs, at typical new office space standards, are estimated at $967 million, while the cost of demolition of the structures is estimated at $25 million. Costs for relocating the approximately 4,200 staff serving in the Headquarters buildings to new premises in proximity to Headquarters for a period of three years or longer are estimated at $218 million. The total estimated cost is $1,210 million. That estimate does not include the cost and disruption to normal operations of convening and servicing all meetings away from the Headquarters site for a period of three to five years.

73. In sum, the capital master plan has been developed to remedy serious existing deficiencies in the facilities at United Nations Headquarters. Three time periods have been considered for implementing the plan. Based both on cost factors and operational considerations, the Secretary-General recommends the implementation of a six-year plan.

74. The sources of funding available to Member States to meet the costs of the capital master plan, the associated financing options and the issue of commercial borrowing are addressed in paragraphs 75 to 88 below.

[13] The estimated costs are based on certain assumptions, including a 1 January 2003 construction commencement date, escalation of construction project costs at 3.5 per cent per annum during each construction year, a design and planning phase contingency of 20 per cent of the construction project cost, professional costs (e.g. architectural, engineering, quality control, project management) of 20 per cent of the construction project cost and a standard construction industry contingency of 5 per cent of construction project cost to cover unanticipated work discovered during actual construction.

Table 2
Estimated costs[a] of three, six and 12-year capital master plans, and reactive approach
(Millions of United States dollars)

		Capital master plan		
	Reactive approach	*Three-year construction*	*Six-year construction*	*12-year construction*
Emergency work	720	0	36	121
Construction				
General Assembly building	41	70	75	77
Conference building	36	62	68	68
Secretariat building	177	300	330	332
Dag Hammarskjöld Library	12	21	22	23
North Lawn extension	8	15	16	16
South Annex	6	8	9	9
UNITAR building	5	9	10	10
Infrastructure	104	176	190	195
Security	31	21	22	25
Site and landscaping	14	10	10	11
Contingency	0	36	40	46
Subtotal	**434**	**728**	**792**	**812**
Recommended additions and improvements				
Expansion of meeting facilities		51	51	51
Consolidation of technology		12	12	12
Improvement of public areas		11	11	11
Subtotal	**0**	**74**	**74**	**74**
Swing space	0	73	62	47
Total	**1 154**	**875**	**964**	**1 054**
25-year total energy cost	490	301	326	367
Grand total, including energy cost	**1 644**	**1 176**	**1 290**	**1 421**

[a] Including the costs for recommended additions and improvements, as discussed and described in paragraphs 45 to 50 above.

IV. Sources of funding, financing options and commercial borrowing

A. Sources of funding

75. There are three possible sources of funding to meet the costs of the capital master plan: special assessments; the programme budget; and voluntary contributions, in cash or in kind, from public and private sources.

B. Financing options

76. In considering the important issue of financing options for meeting the costs of the capital master plan, Member States may wish to note the Secretary-General's intention to establish a five-member expert financial advisory group, composed of financial experts and eminent persons, to assist him in examining and exploring all possible financing options, as well as identifying possible sources of voluntary contributions.

77. Bearing in mind the magnitude of the financial outlay required for implementing the plan, in addition to a "cash payments" option, the Secretary-General has examined three "deferred payments" options which provide for amortization of costs over a 25-year period in order to relate annual cash outlays to the life expectancy of the planned refurbishment.

Cash payments option

78. The cash payments option, based on the application of a one-time or multiple-year special assessment, would be the simplest approach for meeting the costs of the capital master plan. However, relatively large up-front financial outlays would be required from Member States. For example, for a six-year plan, the financial outlays would be $174 million for the first year of the construction period, $174 million for the second year, $174 million for the third year, $161 million for the fourth year, $135 million for the fifth year and $101 million for the sixth year. In addition, due to the need to perform work (e.g., construction design) and incur plan-related costs prior to actual commencement of construction, which would be required for the plan irrespective of its duration, a special assessment amounting to $45 million would have to be issued two years prior to the start of construction as well as during the actual construction period.

79. Table 3 provides an illustrative payment and expenditure pattern under the cash payments option, including both pre-construction and construction period costs, under a six-year capital master plan. It should be noted that the calculations do not include interest income earned on amounts deposited into a construction fund that would be established for the plan and be maintained until its full implementation. Interest income would be used to reduce the amount of annual assessment payments required for the plan.

Table 3
Payment and expenditure pattern: cash payment option
(Millions of United States dollars)

	Year[a]								
	-2	*-1*	*1*	*2*	*3*	*4*	*5*	*6*	*Total*
Incoming payments[b]	8	37	174	174	174	161	135	101	964[c]
Balance from previous year	0	0	0	64.5	36	0	0	0	
Pre-construction expenditure	8	37							45
Construction expenditure			109.5	202.5	210	161	135	101	919
End-of-year balance	0	0	64.5	36	0	0	0	0	0

[a] Construction period is six years, payment period is eight years; thus, years -2 and -1 are pre-construction years; start of construction is year 1.
[b] Including the $8 million special assessment requested for approval by the Secretary-General in paragraph 96 above.
[c] Of the total capital cost requirement of $964 million, approximately $45 million would be required for pre-construction expenditures incurred in the two years (years -2 and -1) prior to construction start; funding would also be required to be in place before incurring construction expenditures.

Deferred payments options

80. Three deferred payments options were examined. *The first deferred payments option is based on the possibility of Member States providing interest-free loans covering the full capital cost requirement.* Under this option, the total capital cost requirement for a six-year capital master plan would remain at $964 million and annual debt service payments over the 25-year period would be $38.6 million. As the loans would be interest-free under this option, there would be no interest cost.

81. *The second deferred payments option is outside commercial borrowing, at market interest rates, of the full capital cost requirement of $964 million.* Under the second deferred payments option, the annual debt service payments over the 25-year period are estimated at approximately $76.8 million, for a total cost of $1,921 million. Net interest costs under the second deferred payments option would total $957 million.

82. *The third deferred payments option is premised on the possibility of interest-free loans being available for only a portion of the total capital cost requirement of $964 million, with the balance of the requirement being obtained from outside commercial borrowing.* The annual debt service payments over the 25-year period under this option would range, depending on the amount of interest-free loans available, between $38.6 million and $76.8 million. Net interest costs would range between none and $957 million, again depending on the amount of interest-free loans received.

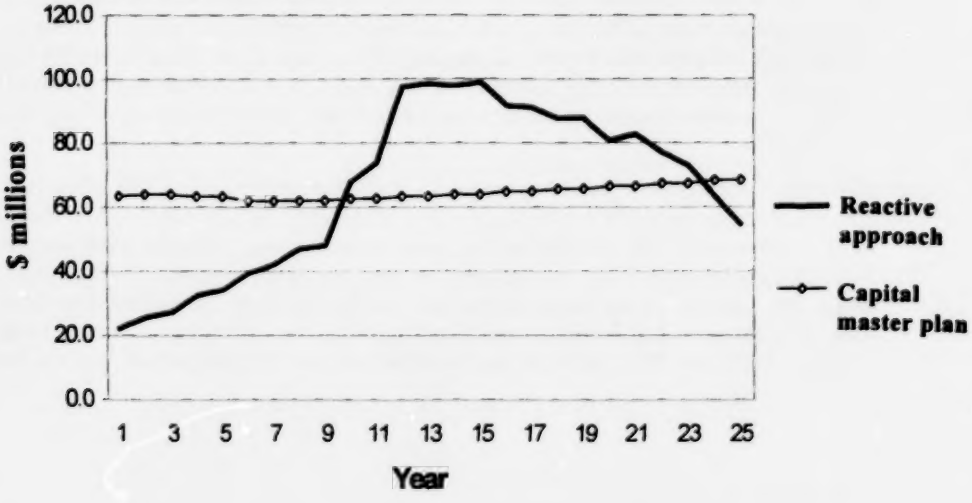
83. In considering the third deferred payments option, the total cost of the six-year capital master plan in comparison with that of the reactive approach should be borne in mind. As noted above, the total cost of the reactive approach over the 25-year period would be $1,644 million, including capital costs and energy costs. In contrast, the total cost of the six-year capital master plan would be $1,290 million, including capital, energy and swing space costs. Thus, implementation of the six-year plan would result in "savings" in the form of avoided costs amounting to $354 million, which could be used to support the costs of interest charges associated with outside borrowing.

84. For example, the $354 million could be used to support a commercial loan of $480 million raised through a bond issue, while the remaining capital cost requirement of $484 million could be secured in the form of interest-free loans from Member States. The annual debt service payment under this example over the 25-year period would be $51.5 million, in comparison to $38.6 million under the first deferred payments option, and $76.8 million under the second. Total annual debt service payments would amount to $1,288 million, comprised of $964 million in principal and $324 million in net interest costs. When added to the estimated total energy cost of $326 million over the 25-year period based on implementation of the six-year capital master plan, the total cost of the plan, including capital, interest and energy costs over the 25-year period, is $1,614 million. This compares to total estimated costs over the same period under the reactive approach of $1,644 million (see table 2).

85. Figure II sets out a comparison of expenditures between the reactive approach and the six-year capital master plan over a 25-year period. The six-year plan expenditures are based on the third deferred payments option (see para. 82 above), with the Organization receiving $484 million in interest-free loans from Member States and $480 million being commercially borrowed through a United Nations bond issue. Annual expenditures for both the reactive approach and the six-year plan include energy costs. Total estimated costs for the reactive approach ($1,644 million) and the six-year plan ($1,614 million) over the 25-year period are nearly the same, but annual expenditure patterns under the six-year plan and the reactive approach are significantly different.

Figure II

Comparison of expenditures between reactive approach and six-year capital master plan



C. Commercial borrowing

86. A financial consultant was engaged by the Secretariat to advise on the viability of outside commercial borrowing. Several possible approaches were examined, including outside commercial loans guaranteed by Member States, borrowing against the assets of the Organization and a commercial bond offering. However, the possibility of Member States acting as guarantors of a commercial loan by the Organization was not considered practical, nor, in the light of the Organization's special status, was the possibility of borrowing against United Nations assets. Subject to the agreement of Member States on the establishment of certain financial mechanisms geared to providing assurances to investors of the return of their investment, the examination undertaken suggests that the only viable approach is a United Nations bond offering. The financial consultant has also suggested approaches that could possibly enhance the United Nations bond's credit rating and result in its debt being considered a "quasi-sovereign" obligation, thereby reducing the overall cost of borrowing. To have the debt treated as a "quasi-sovereign" obligation, the Organization would have to agree to debt service being a "first call" on a partial basis against the receipt of regular budget assessments.

87. Member States may wish to note that there are precedents for both interest-free loans and outside borrowing. An interest-free loan amounting to $65 million, which was repaid over a 31-year period, was obtained from the host Government to finance the construction and furnishing of the Headquarters site in accordance with the Headquarters Agreement of June 1947. As to outside borrowing, in 1961 the General Assembly authorized the Secretary-General to issue 25-year bonds up to $200 million to States Members of the United Nations and members of the specialized agencies and the International Atomic Energy Agency, as well as to the official institutions of such members, and to non-profit institutions or associations (see General Assembly resolution 1739 (XVI) of 20 December 1961). For the purpose of a United Nations bond offering to finance the capital master plan, it is not recommended to limit the pool of potential bond purchasers, as was decided in 1961.

88. *A detailed explanatory note on outside commercial borrowing is contained in* the annex.

V. Voluntary contributions

89. It is assumed that, given the intergovernmental nature of the United Nations, most if not all of the funding requirements of the capital master plan would come from Member States. Notwithstanding, it is considered possible that the Organization might secure a portion of the required financing from voluntary contributions, either from Member States or from public or private sources. Such voluntary contributions would go some way towards easing the financial burden of the plan on Member States. However, since the impact of voluntary contributions would, in all likelihood, be relatively minor, they have not been taken into account in any of the financing options described above.

VI. Conclusion

90. The United Nations facility should be safe, free of hazardous materials, environmentally sound, fully accessible to all persons and cost-efficient to operate. Continuing with the current approach is simply not a viable option because it fails to meet the fundamental needs and interest of delegates, staff and a host of other users of the Headquarters complex in having suitable and modern facilities to carry out the Organization's work in the new millennium. In addition, it makes little sense to incur $1,644 million in costs over the next 25 years under the reactive approach, only to leave the Organization saddled with the same deficient buildings and facilities, when all other approaches examined would cost the Organization less and yet provide it with a refurbished and much improved Headquarters facility. In the opinion of the Secretary-General, there is a clear case for Member States to proceed with the capital master plan.

91. The Secretary-General recommends that Member States endorse in principle his proposal to implement a six-year capital master plan, and that he be authorized to continue exploring all possible financing options for meeting the plan's capital cost requirement, including but not limited to interest-free loans, commercial borrowing, voluntary contributions and amortization of the capital cost requirement over a 25-year period. Since commercial borrowing would significantly increase the overall project cost, the Secretary-General further recommends that Member States consider providing as many interest-free loans as possible in order to keep the plan's costs as low as possible.

VII. Requested actions

92. In order to proceed with the capital master plan, several actions must be taken in parallel. First, the scope of work must be developed in detail and thoroughly agreed upon in order to avoid construction-phase changes that would probably have financial consequences. Second, a decision is required to be taken as early as possible on the critical issue of swing space to permit corresponding action to be taken immediately to develop the most cost-effective strategy. Third, decisions are required to be taken on the approach to be adopted by the Member States to finance the plan's costs.

93. These actions require supporting initiatives. In order to develop the scope of work in detail, the engineering and architectural teams must be selected through competitive procurement and a schematic design developed for the capital master plan. The selection of three architectural and engineering teams is envisaged: an infrastructure team for the early utility modernization work, a building construction team for the renovation work, and a separate team for the UNITAR building, which could have a schedule of work different from the other Headquarters buildings.

94. In order to address the critical decisions of swing space and capital master plan financing, outreaches to the commercial and governmental sectors will be required. Taking into account relevant decisions to be taken by Member States, the Secretary-General intends to consult with the advisory group in order to bring this vitally important project to fruition. Individuals from outside the United Nations experienced in finance and construction issues can also make valuable contributions towards successful implementation of the plan and will therefore be consulted with

respect to their particular expertise, as necessary, by the Secretary-General and the advisory group.

95. Upon completion of a detailed schematic design, a comprehensive implementation schedule for the capital master plan will be established.

96. The Secretary-General therefore recommends that, having considered the present report, the General Assembly:

(a) endorse in principle the recommendation of the Secretary-General to implement a six-year capital master plan;

(b) approve a special assessment of $8 million to cover the costs of the initial schematic design for the plan, including the swing space requirement, in order to provide a detailed basis for its implementation;

(c) request the Secretary-General to continue exploring all financing options for meeting the costs of the plan, including but not limited to its amortization over a 25-year period, with the support of the advisory group;

(d) request the Secretary-General to submit no later than 2001 a comprehensive implementation schedule and financing plan for the capital master plan for approval by the General Assembly.

Annex

Explanatory note on outside commercial borrowing

A. Possibilities for outside commercial borrowing

1. The viability of outside commercial borrowing was examined with the assistance of a financial consultant. Several possibilities were considered, including loans guaranteed by Member States, borrowing against the assets of the Organization and a bond offering. The first possibility was not considered practical since it would require individual Member States to act as legal guarantors of a loan granted to the Organization. The second possibility, outside borrowing against the Organization's assets, was not considered viable due to the United Nations special status under the Convention on the Privileges and Immunities of the United Nations. The third possibility, a bond offering, is considered viable for the reasons explained below.

B. Bond offering

2. A bond offering represents a written obligation of the issuer to repay a loan under specific terms, including the term of years for repayment and the interest rate to be charged on the loan.

C. Financial mechanisms associated with a bond offering

3. In order for the Organization to be in a position to make a bond offering to capital markets, Member States would have to agree to the establishment of certain financial mechanisms geared to assuring investors (i.e., the bond holders) of the return of their investment. The principal mechanism to be established would entail Member States tendering their assessment payments directly to a bond trustee, normally a major financial institution, which would be authorized by the United Nations to "set aside" a certain percentage of the assessment payments for the sole purpose of meeting the required annual debt service payment (i.e., principal and interest) under the bond offering. Once the required annual debt service payment amount was reached, the trustee would no longer set aside any portion of the assessment payments, which would then be fully directed to the United Nations regular budget. At all times, Member States would be credited the full amount tendered to the bond trustee, regardless of the assessment set aside for debt servicing purposes.

D. Debt service coverage and bond interest

4. Lower interest rates on loans are available in capital markets to borrowers who have ample "debt service coverage", which is defined as total revenues available for debt service as a percentage of the *required* debt service. The availability of ample debt service coverage reduces the financial risk to investors and translates into lower borrowing costs for the borrower.

5. Ample debt service coverage for a United Nations bond could be created by permitting the trustee to set aside a higher-than-required percentage of assessment payments tendered by Member States to permit the accelerated collection by the bond trustee of the total annual debt service requirement. Such an arrangement would provide a "cushion" to protect investors from potential or unanticipated declines in the expected flow of revenue available for debt servicing. Once the total annual debt service requirement was reached, all assessment payments received by the trustee would be fully directed to the United Nations regular budget. In order to achieve the ample debt service coverage and taking into account the historical pattern of assessment payments by Member States, investors would probably require 250 per cent of the normally required debt service percentage to be set aside from assessment payments early in the calendar year, thereby allowing the total annual debt service requirement to be reached more quickly every year.

6. As an illustration, if the annual regular budget were $1,198 million and were increased by $52 million to accommodate capital master plan debt service, a Member State with a regular budget assessment of 10 per cent would contribute $125 million towards the regular budget ($1,198 million plus $52 million = $1,250 million; 10 per cent of $1,250 million = $125 million). The portion of the assessment due for plan debt service, or "assessed plan debt service", would be 10 per cent of $52 million, or $5.2 million. Assuming the contribution was made early in the calendar year, a Member State with a 10 per cent regular budget assessment would have 250 per cent of the assessed plan debt service amount retained for plan debt service by the trustee, which in this example would amount to $13 million (250 per cent of $5.2 million = $13 million). By the trustee retaining a higher proportion of early regular budget contributions, the bondholders would be assured that the annual debt service requirement would be met in a timely manner. In this illustration, upon tendering full payment of its assessed contribution, the Member State would receive full credit for its contribution to the regular budget ($125 million), $13 million would be retained by the trustee and applied towards the annual plan debt service payment, and $112 million would be released to the regular budget.

7. The end result of providing ample debt service coverage in the manner described above would be a high-to-medium grade "credit rating" for the United Nations loan, which would in turn reduce the overall cost of borrowing. A description of how credit ratings for a United Nations bond would be established is set out below.

E. Credit rating of United Nations bond

8. Any United Nations bond issue would be evaluated by market participants and potential investors by its credit rating, which is a formal evaluation of the creditworthiness of the bond issue by an independent credit rating agency. An "investment grade" rating reflects the credit rating agencies' belief that the probability of payment of the bond is high and the financial risk associated with the investment is low.

9. Investors use credit ratings as a factor in pricing loans on bonds. The more secure the borrowing, the more likely the investor is to get its loan repaid and the less risk is involved in making the loan. When investors make less risky loans, they

require a lower "risk premium", thereby reducing the cost of borrowing to the borrower.

10. In establishing a credit rating on a United Nations bond issue, the credit rating agencies would focus on the source and probability of timely debt service payments, in accordance with the terms applicable to the bond issue. The United Nations goal with respect to the credit rating would be to convince the credit rating agencies to treat the borrowing as "quasi-sovereign" for credit rating purposes. Sovereign obligations, such as bonds, are commonplace in the capital markets, and demonstrate strong investor demand and confidence. The obligations of certain organizations, such as the World Bank, are defined as quasi-sovereign by the credit ratings agencies. Like the World Bank, United Nations budget assessment payments are obligations of Member States, and accordingly United Nations obligations (i.e., the bond issue) would probably be eligible to be defined as quasi-sovereign. That would provide the United Nations with the benefit of a higher credit rating, which would result in a lower cost for borrowing.

11. The credit rating agencies would probably evaluate the United Nations for credit rating purposes based on various criteria, including:

(a) Credit and security structure;

(b) Breadth, stability, predictability and collectability of revenue;

(c) Revenue source's protection from adjustment;

(d) Structural elements (e.g., trustee, funds flow, timing);

(e) Debt service coverage;

(f) Rationale for the borrowing and the project's importance.

A financial consultant firm has advised that the United Nations could expect to receive a credit rating in a range between the "AA" (very high grade, high quality) and "A" (upper medium grade) categories.

12. Member States might wish to note that a United Nations bond issue's potential appeal to investors could be enhanced by limiting the number of Member States whose assessment payments would be subject to the "set aside" mechanism described in paragraph 3 above, which would not only reduce the number of Member States whose assessment payments were used to meet the total annual debt service requirement but would also reduce the number of Member States required to be analysed by the credit rating agencies to establish the credit rating of a United Nations bond. Implementation of that approach would essentially result in the utilization of the high credit ratings of some Member States to enhance the overall credit rating of a United Nations bond issue, which would benefit all Member States since it would lower the overall cost of borrowing. Moreover, including a smaller number of Member States in the set aside mechanism would facilitate consideration of any United Nations bond offering by market participants and would probably prove easier and less costly for the bond trustee to administer. It should be emphasized that irrespective of whether a particular Member State's assessments were utilized for set aside purposes, all assessments received by the bond trustee would be fully credited to assessed contributions.

F. Level annual debt service

13. The bonds can be structured to mature (i.e., come due) over 25 years, resulting in level annual debt service requirements. Upon the issuance of the bonds, the United Nations would invest the bond proceeds in a project construction fund account to be invested over the period of construction. Construction fund earnings would be applied to the annual debt service requirement, thereby reducing the net annual debt service to be met by the set aside procedure.

G. Agreements required

14. Two agreements would be required to be entered into for the purposes of issuing a United Nations bond:

(a) *Agreement between United Nations and participating Member States.* Every Member State involved in the set aside mechanism would be requested to enter into an agreement with the United Nations, acknowledging that its assessments would be subject to the set aside mechanism and that any assessment payments received by the bond trustee would be fully credited against its regular budget assessment;

(b) *Agreement between participating Member States and the bond trustee.* Every Member State whose assessments would be subject to the set aside mechanism would enter into agreement with the bond trustee, acknowledging that fact and that any portion of the assessment payments received by the bond trustee not used for set aside purposes would be directed to the United Nations regular budget.